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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/519,284	12/27/2004	Uwe Bottcher	821-64	8916

7590 08/22/2008
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EXAMINER

PETERSON, KENNETH E

ART UNIT	PAPER NUMBER
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3724

MAIL DATE	DELIVERY MODE
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08/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/519,284	Applicant(s) BOTTCHER, UWE	
	Examiner Kenneth Peterson	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-30 and 32-42 is/are pending in the application.
- 4a) Of the above claim(s) 6-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 32-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 3724

1. Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 35 is indefinite, because no structural parameters are established for obtaining the desired effect ($\pm 0.17^\circ$). The Patent Office, with its limited resources, is not capable of determining which prior art is or is not capable of cleaving optical fibers within the recited range. Similarly, those of ordinary skill also could not tell if their devices were infringing without conducting undue testing.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1,3-5,32-42 are rejected under 35 U.S.C. 102(b) as being anticipated by Fellows (4,790,465).

Firstly Examiner would like to note that many of the limitations in Applicant's claims are based upon the *capabilities* of the device, rather than specific structure. Many of the recitations are more akin to method steps than structure. As is known, the Examiner cannot give full weight to a method step in an apparatus claim. For example, the recitation that the blade is vibrated between 100 and 700 Hertz can only be given weight inasmuch as it infers structure. Accordingly, if a prior art shows a vibrator that is *capable* of vibrating at any speed, but is disclosed as optimal at 2000 Hertz, it still would

Art Unit: 3724

meet the claim because it has the structure to vibrate between 100 and 700 hertz.

Likewise, a piece of prior art shown holding a steel rod 1000µm thick could be applied against a claim for holding a glass rod of 500µm thick, so long as it was *capable* of doing so.

Fellows shows;

spaced clamping locations (6, figure 6),

a rod cleaving blade (3) positioned between the two clamping locations (figure 6),

a piezo-electric body (line 5, column 3),

a drive means (5).

The recitation of vibrating the blade at between 100 and 700 Hertz (or between 250 and 450 Hertz) is outside the range recommended by Fellows (about 1000 Hertz or higher), but it is NOT outside the range of what Fellows is *capable* of vibrating at. To cause his vibration, Fellows employs the drive (5, lines 1-3, column 3) and/or the piezo-electric body (lines 3-6, column 3). Both the piezo-electric body and especially the drive are *capable* of vibrating between 100 and 700 Hertz (or between 250 and 450 Hertz), depending on what voltage, current or wave-form is applied.

Fellows is *capable* of holding rods as small as 200µm, as nothing is shown in any of the figures that would prevent this.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 3724

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1,3-5 and 32-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fellows (4,790,465) in view of Shilkrut et al. (6,000,310).

Fellows shows all of the recited limitations as discussed above. Even though it is not necessary, it would have been obvious to one of ordinary skill in the art to have modified Fellows to change his frequency range.

It has long been known to cut materials using frequencies in the recited ranges. See, for example, the patent to Shilkrut, on line 7, column 3, and on line 23 column 16. Much depends on what material is being cut. It would have been obvious to one of ordinary skill in the art to have adapted Fellows device to cut things other than optical fibers, such as paper or metal (line 17, column 15), and to have changed frequencies to those recommended by Shilkrut (e.g. 50-500 Hertz).

6. Applicant's arguments have been fully considered but they are not persuasive.

Applicant argues that the amended claim 35 has overcome the rejections of 35 USC 112. However, neither the office nor the public can determine what would or would not infringe without undue experimentation.

Applicant's arguments against the 103 rejection, along with the Declaration, are appreciated. However, they are directed to a *method* of cleaving optical fibers, whereas we are dealing with an *apparatus* claim. As discussed above, Examiner is not permitted

Art Unit: 3724

to give full weight to method steps in an apparatus claim, but can only give weight inasmuch as structure is inferred.

It might be more beneficial for Applicant to file a divisional case directed to method claims.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Peterson whose telephone number is (571)272-4512. The examiner can normally be reached on Monday-Thursday, 7:30AM-5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley can be reached on (571)272-4502. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Kenneth Peterson/
Primary Examiner, Art Unit 3724